

The

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Inventors:

Hisao KOGA, et al.

Art Unit: 2661

Application No.:

10/719,061

Examiner: Unassigned

Filed:

November 24, 2003

For:

MULTICARRIER TRANSMITTER, MULTICARRIER RECEIVER, AND MULTICARRIER COMMUNICATIONS

APPARATUS

INFORMATION DISCLOSURE STATEMENT

Assistant Commissioner of Patents Washington, DC 20231

Dear Sir:

Pursuant to Rules 56 and 99, Applicants hereby call the attention of the Patent Office to the documents listed on the attached Form PTO 1449.

Applicants present this art so that the Patent Office may, in the first instance, determine any relevancy thereof to the presently claimed invention, see <u>Beckman Instruments</u>, <u>Inc. v. Chemtronics</u>, <u>Inc.</u>, 439 F.2d 1369, 1380, 165 USPQ 355, 364 (5th Cir. 1970). Also see Patent Office Rules 104 and 106. Applicants respectfully request that this art be expressly considered during the prosecution of this application and made of record herein and

appear among the "References Cited" on any patent to issue herefrom.

Respectfully submitted,

Date: August 4, 2006

James E. Ledbetter Registration No. 28,732

JEL/ejw

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FORM PTO-1449 U.S. Department of Commerce P (Rev. 4/92) Patent and Trademark Office P INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary AUS)

ATTY. DOCKET NO.

SERIAL NO.

L8612.03108

10/719,061

APPLICANT

Hisao KOGA, et al

FILING DATE November 24, 2003

GROUP Unassigned

	U.S. PATENT DOCUMENTS													
EXAMINER	DOCUMENT NUMBER								DATE	NAME	CLASS	SUBCLASS	IF FILING PATETE	
		6	4	7	3	4	0	9	10/2002	Malvar				•
		6	4	8	7	5	7	4	11/2002	Malvar				
		6	4	9	6	7	9	5	12/2002	Malvar				
						FOR	EIGN	PATE	NT DOCUM	ENTS		<u> </u>		
	DOCUMENT NUMBER								DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
									:				YES	NO
	OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)													
	J. Alhava, et al., "Adaptive Sine-Modulated/Cosine-Modulated Filter Bank Equalizer for Transmultiplexers," European Conference on Circuit Theory and Design, Espoo, Finland, Aug. 28-31, 2001, pp. 337-340.													
	A. Viholainen, et al., "Implementation of Parallel Cosine and Sine Modulated Filter Banks for Equalized Transmultiplexer Systems," Telecommunications Laboratory, Tampere University of Technology, Tampere, Finland, IEEE, 2001, pp. 3625-2628.													
	A. Viholainen, et al., "Complex Modulated Critically Sampled Filter Banks Based on Cosine and Sine Modulation," Institute of Communications Engineering, Tampere University of Technology, Tampere, Finland, IEEE, 2002, pp. 833-836.													
	J. Alhava, et al., "Exponentially-Modulated Filter Bank-Based Transmultiplexer," Tampere University of Technology, Institute of Communications Engineering, Tampere, Finland, IEEE, 2003, pp. 233-236.													
	J. Alhava, et al., "Efficient Implementation of Complex Exponentially-Modulated Filter Banks," Tampere University of Technology, Institute of Communications Engineering, Tampere, Finland, 2003, pp. 157-160.													
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EXAMINER

DATE CONSIDERED

EXAMINER: Initial if citation is considered, draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.